



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

09/127,276

APPLICATION NO. 09/127,276	FILING DATE 07/29/98	FIRST NAMED INVENTOR MAHANY	ATTORNEY DOCKET NO. R DN38307RX
-------------------------------	-------------------------	--------------------------------	------------------------------------

GARY R STANFORD
AKIN GUMP STRAUSS HAUER AND FELD
816 CONGRESS AVENUE SUITE 1900
AUSTIN TX 78701

TM32/1103

EXAMINER

CORSARO, N

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 11/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/127,276

Applicant(s)

Ronald L. Mahany

Examiner

Nick Corsaro

Group Art Unit
2684



☒ Responsive to communication(s) filed on Sep 11, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-17 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 2684

DETAILED ACTION

Election/Restriction

1. Applicant's election of claims 1-17 in Paper No. 8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed PCT (no country referenced) filed on 02/26/98. It is noted, however, that applicant has not filed a certified copy of the PCT application as required by 35 U.S.C. 119(b).

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The following title is suggested: " LOW POWER WIRELESS BEACONING NETWORK SUPPORTING PROXIMAL FORMATION SEPARATION AND REFORMATION OF WIRELESS LOCAL AREA NETWORKS (LAN'S), AS TERMINAL MOVE IN AND OUT OF RANGE OF ONE ANOTHER".

Art Unit: 2684

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7, and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn et al. (5,745,699) in view of Borgstahl et al. (6,069,896).

Consider claim 1, Lynn discloses a wireless communication system comprising: a plurality of wireless devices (12, figure 1), each wireless device including a radio, that together participate in a first wireless roaming network when within range of one another (see col. 4 lines 10-26, col. 2 lines 13-31). Lynn discloses that the stations automatically configure themselves in to a data network when within range of each other (see col. 1 lines 30-67, col. 2 lines 13-24, col. 5 lines 59-67, and col. 6 lines 1-48). Lynn does not explicitly teach at least two of the plurality of wireless devices, when moved out of range of the other of the plurality of wireless devices, automatically attempting to establish a second wireless roaming network to support communication between the at least two of the plurality of wireless devices. Borgstahl teaches at least two of the plurality of wireless devices, when moved out of range of the other of the plurality of wireless devices, automatically attempting to establish a second wireless roaming network to support communication between the at least two of the plurality of wireless devices (see col. 1 lines 5-8, col. 2 lines 65-67, col. 3 lines 12-20, col. 3 lines 27-32, col. 3 lines 1-33,

Art Unit: 2684

col. 11 lines 49-61, and col. 12 lines 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have at least two of the plurality of wireless devices, when moved out of range of the other of the plurality of wireless devices, automatically attempting to establish a second wireless roaming network to support communication between the at least two of the plurality of wireless devices, as taught by Borgstahl, thus allowing small personal area networks to be formed when two or more devices are within range of reach other.

Consider claim 2, Lynn does not disclose at least one of the other of the plurality of wireless devices attempts to maintain operation of the first wireless roaming network. Borgstahl teaches at least one of the other of the plurality of wireless devices attempts to maintain operation of the first wireless roaming network (see col. 3 lines 12-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have at least one of the other of the plurality of wireless devices attempts to maintain operation of the first wireless roaming network, as disclosed by Borgstahl, thus allowing small personal area networks to be formed when two or more devices are within range of reach other.

Consider claim 3, Lynn discloses at least one of the other of the plurality of wireless devices attempts to identify whether any of the plurality of wireless devices are not participating on the first wireless roaming network (see col. 7 lines 17-26).

Consider claim 4, Lynn does not disclose the at least one of the other of the plurality of wireless attempts to rescue any of the plurality of wireless devices that are not participating on

Art Unit: 2684

the first wireless roaming network. Borgstahl discloses the at least one of the other of the plurality of wireless attempts to rescue any of the plurality of wireless devices that are not participating on the first wireless roaming network (see col. 6 lines 28-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have at least one of the other of the plurality of wireless devices attempt to rescue any of the plurality of wireless devices that are not participating on the first wireless roaming network, as shown by Borgstahl, thus allowing roaming devices to connect to a personal area network within range.

Consider claim 5, Lynn does not disclose the radios of the plurality of wireless devices utilize frequency hopping transmission sequences, and the attempt to rescue involves visiting at least one frequency of the frequency hopping transmission sequences more often than the other frequencies of the frequency hopping transmission sequences. Borgstahl discloses the radios of the plurality of wireless devices utilize frequency hopping transmission sequences and the attempt to rescue involves visiting at least one frequency of the frequency hopping transmission sequences more often than the other frequencies of the frequency hopping transmission sequences (see col. 3 lines 53-57, and col. 2 lines 1-12, and col. 6 lines 8-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have the radios of the plurality of wireless devices utilize frequency hopping transmission sequences and the attempt to rescue involves visiting at least one frequency of the frequency hopping transmission sequences more often than the other frequencies of the

Art Unit: 2684

frequency hopping transmission sequences, as shown by Borgstahl, thus allowing roaming devices that are not connected to connect to a personal area network.

Consider claims 6 and 7, Lynn does not disclose any of the plurality of wireless devices that determine that they no longer participate on the first wireless roaming network attempt to reconnect to the first wireless local area network. Borgstahl discloses any of the plurality of wireless devices that determine that they no longer participate on the first wireless roaming network attempt to reconnect to the first wireless local area network (see abstract lines 3-5, and col. 3 lines 7-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have any of the plurality of wireless devices that determine that they no longer participate on the first wireless roaming network attempt to reconnect to the first wireless local area network, as shown by Borgstahl, thus allowing roaming devices that are not connected to connect to the original personal area network.

Consider claims 11 and 12, Lynn does not disclose a higher power wireless link independent from the first and second wireless roaming networks, and at least one of the plurality of wireless devices communicates with the higher power wireless link. Borgstahl discloses a higher power wireless link independent from the first and second wireless roaming networks, and at least one of the plurality of wireless devices communicates with the higher power wireless link (see col. 4 lines 31-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have a higher power wireless link,

Art Unit: 2684

as shown by Borgstahl, thus allowing roaming devices to connect to public LANs or phone systems.

Consider claim 13, Lynn does not disclose the at least two of the plurality of wireless devices rejoin the first wireless roaming network when moving within range of the others of the plurality of wireless devices. Borgstahl discloses at least two of the plurality of wireless devices rejoin the first wireless roaming network when moving within range of the others of the plurality of wireless devices (see col. 3 lines 8-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have at least two of the plurality of wireless devices rejoin the first wireless roaming network when moving within range of the others of the plurality of wireless devices , as shown by Borgstahl, thus allowing roaming devices to reconnect to the original personal LAN when with in range.

Consider claims 14 and 15, Lynn does not disclose the plurality of wireless devices are portable terminals with removable battery and initiate operation of the first wireless roaming network through reduced power transmissions. Borgstahl discloses the plurality of wireless devices are portable terminals with removable battery and initiate operation of the first wireless roaming network through reduced power transmissions (see col. 3 lines 58-67, and col. 4 lines 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have the plurality of wireless devices be portable terminals with removable batteries, and initiate operation of the first wireless roaming network

Art Unit: 2684

through reduced power transmissions, as shown by Borgstahl, thus allowing roaming devices that operate on batteries to conserve power by initiating close proximity LAN's.

Consider claim 16, Lynn discloses proximity and range as a factor in wireless roaming networks (see col. 2 lines 13-24). Lynn does not explicitly disclose the devices initiate operation in the first wireless network when in close proximity to one another. Borgstahl discloses the devices initiate operation in the first wireless network when in close proximity to one another (see col. 3 lines 8-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have the plurality of wireless devices initiate operation of the first wireless roaming network when in close proximity, as taught by Borgstahl, thus allowing small personal area networks to be formed.

Consider claim 17, Lynn does not disclose the radios of the plurality of wireless devices each support a smart and dumb interface. Borgstahl discloses smart and dumb interfaces (see col. 5 lines 31-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn, and have the plurality of wireless devices incorporate smart and dumb interfaces, as taught by Borgstahl, thus allowing them to act as gateways.

7. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn in view of Borgstahl, as applied to claim 1 above, and further in view of Ramanathan et al. (5,850,592).

Consider claims 8-10, Lynn and Borgstahl do not explicitly disclose more than one of the plurality of wireless devices share beaconing responsibilities. Ramanathan discloses more than

Art Unit: 2684

one of the plurality of wireless devices share beaconing responsibilities (see col. 2 lines 38-67, and col. 4 lines 13-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Lynn and Borgstahl, and have more than one of the plurality of wireless devices share beaconing responsibilities, as shown by Ramanathan, thus allowing any roaming device to become a control station.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(6,055,429) Lynch teaches dynamically forming wireless networks from mobile units.

(5,740,366) Mahany teaches wireless LAN's.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nick Corsaro whose telephone number is (703)306-5616 . The examiner can normally be reached on from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter, can be reached on (703) 308-6732 . The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6306 or (703) 308-6296 .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Application/Control Number: 09/127,276

Page 10

Art Unit: 2684

Nick Corsaro



WILLIAM CUMMING
PRIMARY EXAMINER
GROUP 2600